

MBK 3 - Mini feed-through terminal block



1413010

<https://www.phoenixcontact.com/sg/products/1413010>

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Mini feed-through terminal block, nom. voltage: 500 V, nominal current: 24 A, number of connections: 2, connection method: Screw connection, Rated cross section: 2.5 mm², cross section: 0.2 mm² - 4 mm², mounting type: NS 15, color: gray

Your advantages

- Clear arrangement thanks to marking of all terminal points
- Space saving thanks to compact design and mounting option on a 15 mm DIN rail
- Easy potential distribution thanks to standardized plug-in bridges

Commercial data

Item number	1413010
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	0110*
Product key	BE1261
Catalog page	Page 522 (CL1-2011)
GTIN	4017918021092
Weight per piece (including packing)	6.222 g
Weight per piece (excluding packing)	6.718 g
Customs tariff number	85369010
Country of origin	PL

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Technical data

Product properties

Product type	Miniature terminal block
Number of connections	2
Number of rows	1
Potentials	1

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Rated surge voltage	6 kV
Maximum power dissipation for nominal condition	0.77 W

Connection data

Number of connections per level	2
Nominal cross section	2.5 mm ²
Screw thread	M3
Tightening torque	0.6 ... 0.8 Nm
Stripping length	8 mm
Internal cylindrical gage	A3
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	0.2 mm ² ... 4 mm ²
Cross section AWG	24 ... 12 (converted acc. to IEC)
Conductor cross section flexible	0.25 mm ² ... 2.5 mm ²
Conductor cross section, flexible [AWG]	24 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.25 mm ² ... 2.5 mm ²
Flexible conductor cross section (ferrule with plastic sleeve)	0.25 mm ² ... 2.5 mm ²
Cross-section with insertion bridge, rigid	2.5 mm ²
Cross-section with insertion bridge, flexible	2.5 mm ²
2 conductors with same cross section, solid	0.2 mm ² ... 1.5 mm ²
2 conductors with same cross section, flexible	0.25 mm ² ... 1.5 mm ²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm ² ... 1.5 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² ... 1 mm ²
Nominal current	24 A
Maximum load current	32 A (with 4 mm ² conductor cross section)
Nominal voltage	500 V
Nominal cross section	2.5 mm ²

Dimensions

Width	5.2 mm
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End cover width	2.5 mm
Height	28 mm
Depth	30.2 mm

Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94	V2
Insulating material group	I
Insulating material	PA
Static insulating material application in cold	-40 °C
Relative insulation material temperature index (Elec., UL 746 B)	125 °C

Electrical tests

Surge voltage test

Test voltage setpoint	7.3 kV
Result	Test passed

Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed
	Test passed
Short-time withstand current 2.5 mm ²	0.3 kA
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	1.89 kV
Result	Test passed

Mechanical properties

Mechanical data

Open side panel	Yes
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Mechanical tests

Mechanical strength

Result	Test passed
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Attachment on the carrier

DIN rail/fixing support	NS 15
Test force setpoint	1 N
Result	Test passed

Test for conductor damage and slackening

Rotation speed	10 (+/- 2) rpm
Revolutions	135
	0.25 mm ² / 0.2 kg

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Conductor cross section/weight	2.5 mm ² / 0.7 kg
	4 mm ² / 0.9 kg
Result	Test passed

Environmental and real-life conditions

Needle-flame test

Time of exposure	30 s
Result	Test passed

Oscillation/broadband noise

Specification	DIN EN 50155 (VDE 0115-200):2018-05
Spectrum	Long life test category 2, bogie-mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
ASD level	6.12 (m/s ²) ² /Hz
Acceleration	3.12g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Result	Test passed

Shocks

Pulse shape	Half-sine
Acceleration	30g
Shock duration	18 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)
Result	Test passed

Ambient conditions

Ambient temperature (operation)	-40 °C ... 110 °C (Operating temperature range incl. self-heating; for max. short-term operating temperature, see RTI Elec.)
Ambient temperature (storage/transport)	-25 °C ... 60 °C (for a short time, not exceeding 24 h, -60 °C to +70 °C)
Ambient temperature (assembly)	-5 °C ... 70 °C
Ambient temperature (actuation)	-5 °C ... 70 °C
Permissible humidity (operation)	20 % ... 90 %
Permissible humidity (storage/transport)	30 % ... 70 %

Standards and regulations

Connection in acc. with standard	IEC 60947-7-1
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Mounting

Mounting type	NS 15
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Drawings

Circuit diagram

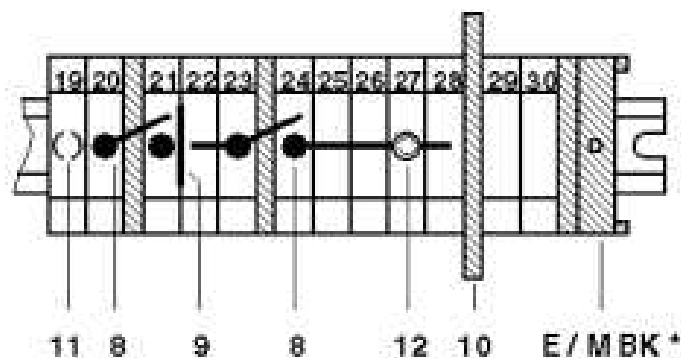
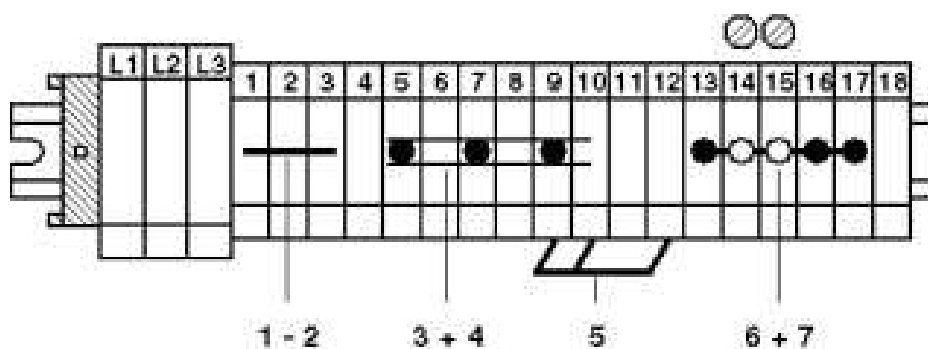
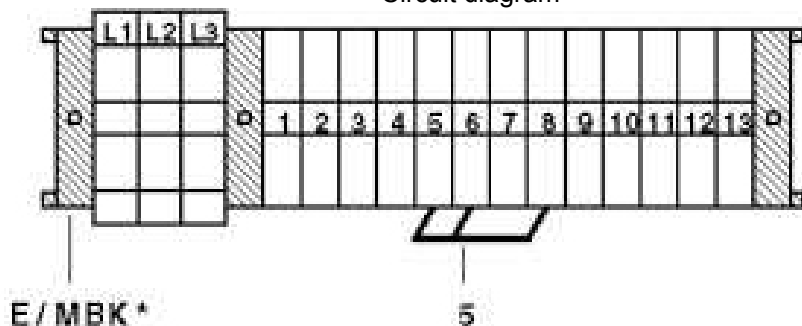


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Circuit diagram



- 1 = cover
- 2 = fixed bridge, for cross-connections in the terminal center, screw heads with insulating collar
- 3 = fixed bridge, for cross-connections in the terminal center, with crimped-on rollers
- 4 = insertion bridge
- 5 = isolator bridge bar
- 6 = bridge bar isolator
- 7 = switch bar for 2 terminal blocks
- 8 = separating plate
- 9 = partition plate
- 10 = test plug socket

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/sg/products/1413010>

	CSA			
	Approval ID: 13631			
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	150 V	25 A	28 - 12	-

	EAC			
	Approval ID: EACKZ 08593			

	cULus Recognized			
	Approval ID: E60425			

	NK			
	Approval ID: 09 ME 142			

	cULus Recognized			
	Approval ID: E60425			

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Classifications

ECLASS

ECLASS-11.0	27141120
ECLASS-13.0	27250101

ETIM

ETIM 9.0	EC000897
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UNSPSC

UNSPSC 21.0	39121400
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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